

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1-13. (cancelled)
14. (New) A plate heat exchanger comprising:
- a plurality of quadrilateral partition plates arranged in a stack,
- wherein each partition plate has a first and second major sides and comprises
- (a) a generally quadrilateral center portion comprising a major portion of the area of the plate and having a generally uniform plate thickness;
 - (b) a first solid edge region having the thickness greater than the thickness of said center portion;
 - (c) a second solid edge region, opposite said first solid edge region, having a thickness greater than the thickness of said center portion, said first and second solid edge regions being on a first side of the plate;
 - (d) a third solid edge region having a thickness greater than the thickness of said center portion; and
 - (e) a fourth solid edge region, opposite said third solid edge region, having a thickness greater than the thickness of said center portion, said third and fourth solid edge regions being on a second side of the plate and on opposite edges than said first and second solid edge regions;
- wherein each of said solid edge regions is on the partition plate surface;
- wherein each plate is joined to an adjacent plate along abutting first and second edge regions or along abutting third and fourth edge regions, thereby defining a flow channel between each plate and an adjacent plate; and

wherein successive pairs of plates within said stack are arranged at an angle of 90° relative to a previous pair of partition plates, thereby defining flow channels alternating in a first direction and a second direction.

15. (New) A plate heat exchanger according to claim 14, wherein said plates comprise a relatively thin metallic sheet material forming the central portion.

16. (New) A plate heat exchanger according to claim 15, wherein said plates have a thickness of less than 0.2 mm.

17. (New) A plate heat exchanger according to claim 14, wherein said plates comprise stainless steel.

18. (New) A plate heat exchanger according to claim 14, wherein each flow channel is separated from its adjacent flow channel(s) by only a single partition plate.

19. (New) A plate heat exchanger according to claim 16, wherein the flow channels have a height of between 0.15 and 2 mm.

20. (New) A motor vehicle power system comprising a heat generating power source and at least one heat exchanger operatively connected with said power source, wherein the heat exchanger comprises a plate type heat exchanger as defined by claim 14.

21. (New) A motor vehicle power system according to claim 20, wherein the power source comprises a fuel cell.

22. (New) A motor vehicle power system according to claim 20, wherein the plates of the heat exchanger comprise a relatively thin metallic sheet material forming the central portion.

23. (New) A motor vehicle power system according to claim 22, wherein the plates have a thickness of less than 0.2 mm.

24. (New) A motor vehicle power system according to claim 23, wherein the plates comprise stainless steel.

25. (New) A motor vehicle power system according to claim 24, wherein the flow channels have a height of between 0.15 and 2 mm.